AMENMENTS TO THE CLAIMS

COMPLETE LISTING OF THE CLAIMS

1. (Amended) An RF coupled implantable medical system comprising:

a transmitting unit;

a2 a receiving unit including an implantable, electrically operated, medical device, RF energy receiving means, RF signal transmitting means and a rechargeable battery;

said transmitting unit including a power source, RF energy transmitting means, RF signal receiving means and first control means coupled to said RF energy transmitting means and to said RF signal receiving means for controlling the amount of RF energy transmitted to said receiving unit thereby to conserve on the amount of power obtained from said power source; and,

second control means coupled to said RF energy receiving means, to said rechargeable battery, to said RF signal transmitting means and to said implantable medical device, for adjusting the charging current flowing into said rechargeable battery, as a function of (a) the charge level of said rechargeable battery, (b) selected charging rate, and (c) selected power supply for the implantable medical device .

Claims 2-27 (Original).

28. (Amended) An RF coupled implantable medical system comprising:

a transmitting unit;

a receiving unit including an implantable, electrically operated, medical

device;

said transmitting unit including RF energy transmitting means, RF signal receiving means and first control means coupled to said RF energy transmitting means and to said RF signal receiving means for controlling the amount of RF energy transmitted to said receiving unit;

said receiving unit including RF energy receiving means, RF signal transmitting means, a rechargeable power supply coupled to said RF energy receiving means and second control means for adjusting the charging current flowing into [said rechargeable battery coupled to] said rechargeable power supply [means], the current to said RF energy receiving means, the current to said RF signal transmitting means and [to] output signals from an output of said implanted medical device; [and,]

said receiving unit comprising means for measuring the charge level of said rechargeable [battery] power supply and, upon sensing a fully charged [battery] power supply, automatically up-linking a coded signal which commands said transmitting unit to ["stop"] stop transmitting RF energy; and,

mode selection means in one of said transmitting unit or said receiving unit for controlling the supply of power in one of several modes of operation selected from one of: a) simultaneously operate the implanted medical device and recharge the rechargeable power supply from the transmitted RF energy, b) operate the implanted medical device exclusively from the rechargeable power supply, c) operate the implanted medical device from the transmitted RF energy or d) operate the implanted device from both the rechargeable power supply and the transmitted RF energy.

29. (Amended) An RF coupled implantable medical system comprising:

a transmitting unit;

a receiving unit including an implantable, electrically operated, medical device, RF energy receiving means, and a rechargeable power supply;

said transmitting unit including a power source and an RF energy transmitting means;

said receiving unit including control means coupled to said rechargeable power supply and to said implantable medical device for adjusting the charging current flowing into said rechargeable power supply; and,

mode selection means in one of said transmitting unit or said receiving unit for controlling the supply of power in one of several modes of operation selected from one of: a) simultaneously operate the implanted medical device and recharge the rechargeable power supply from the transmitted RF energy, b) operate the implanted medical device exclusively from the rechargeable power supply, c) operate the implanted medical device from the transmitted RF energy or d) operate the implanted device from both the rechargeable power supply and the transmitted RF energy.

30. (Amended) An RF coupled implantable medical system comprising:

a transmitting unit;

a receiving unit including an implantable, electrically operated, medical device, RF energy receiving means, and a rechargeable power supply; and,

said transmitting unit including a power source and an RF energy transmitting means; and

said receiving unit including control means coupled to said rechargeable power supply and to said implantable medical device for adjusting the charging

current flowing into said rechargeable power supply; and,

mode selection means in one of said transmitting unit or said receiving unit for controlling the supply of power in one of several modes of operation selected from one of: a) simultaneously operate the implanted medical device and recharge the rechargeable power supply from the transmitted RF energy, b) operate the implanted medical device exclusively from the rechargeable power supply, c) operate the implanted medical device from the transmitted RF energy or d) operate the implanted device from both the rechargeable power supply and the transmitted RF energy.

31. (Amended) An RF coupled implantable medical system comprising:

a transmitting unit;

a receiving unit including an implantable, electrically operated, medical device, RF energy receiving means, and a rechargeable power supply;

said transmitting unit including a power source, RF energy transmitting means, and first control means coupled to said RF energy transmitting means for controlling the amount of RF energy transmitted to said receiving unit thereby to conserve on the amount of power obtained from said power source;

said receiving unit including second control means coupled to said rechargeable power supply and to said implantable medical device for adjusting the charging current flowing into said rechargeable power supply; and,

mode selection means in one of said transmitting unit or said receiving unit for controlling the supply of power in one of several modes of operation selected from one of: a) simultaneously operate the implanted medical device and recharge the rechargeable power supply from the transmitted RF energy, b) operate the implanted medical device exclusively from the rechargeable power supply, c)

operate the implanted medical device from the transmitted RF energy or d) operate the implanted device from both the rechargeable power supply and the transmitted RF energy.

32. (New) An RF coupled implantable medical system of claim 29 further comprising memory means coupled to said control means for storing information for controlling an output signal from said implantable medical device.

33. (New) An RF coupled implantable medical system of claim 30 further comprising memory means coupled to said control means for storing information for controlling an output signal from said implantable medical device.

34. (New) An RF coupled implantable medical system of claim 31 further comprising memory means coupled to said second control means for storing information for controlling an output signal from said implantable medical device.